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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/705,938

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Yoshiki Ishii

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EXAMINER

WERNER, DAVID N

ART UNIT

PAPER NUMBER

2621

MAIL DATE

DELIVERY MODE

01/21/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/705,938	Applicant(s) ISHII, YOSHIKI	
	Examiner David N. Werner	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,7,26 and 31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,7,26 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20091027</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action for U.S. Patent Application 10/705,938 is responsive to communications filed 27 October 2009, in reply to the Non-Final Rejection of 27 July 2009. Currently, Claims 1, 7, 26, and 31 are pending. Of those, Claim 31 is new.

2. In the previous Office action, Claims 1, 7, 10–15, 17, and 26–30 were rejected under 35 U.S.C. 103(a) as obvious over U.S. Patent 5,987,179 A (*Riek*) in view of U.S. Patent 4,546,390 (*Konishi*). Claims 4–6 and 16 were rejected under 35 U.S.C. 103(a) as obvious over *Riek* in view of *Konishi* and in view of Japanese Patent Application Publication 2000–050263 A (*Asada*).

Response to Arguments

3. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. It is respectfully submitted that U.S. Patent 4,691,223 (*Acampora*) discloses the claimed rate control circuit and resolution converting circuit as presently claimed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 7, 26, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,987,179 A (*Riek*) in view of U.S. Patent 4,691,223 (*Acampora*). *Riek* discloses a camera that encodes still images in an MPEG bitstream. Regarding claim 1, figure 2 illustrates an embodiment of the *Riek* apparatus. Light is input through lens 12 to CCD 14, which forms images. *Riek* at column 4: lines 15–18. These images are converted to a standard digital format in ISO CCIR601 converter 27. *Id.* at column 4: lines 35–38. Then, converter 27 is the claimed "receiving unit". As will be shown below, the images received may be encoded as still images or moving images. The *Riek* encoder monitors for a buffer overflow, and after encoding an image, decides that the image may need to be re-encoded at various quantization levels. *Id.* at 9: lines 5–27. Logic and control unit 32 is shown in figure 2 to control the MPEG encoder, and so is the claimed "rate control unit" that controls a code amount and detects if the amount of encoding data is over a threshold—here, the amount of data that would cause decoder buffer overflow. The claimed "feedback signal" travels on the bus illustrated in figure 2 from control unit 32 and MPEG encoder 30, and includes an instruction to re-encode a picture to prevent overflow.

A user may switch from recording motion images to recording still images with still select button 22 which causes logic and control unit 32 to encode a still image. *Riek* at column 4: lines 41–50. Then, still select button 22 is the claimed "control-signal receiving unit", that receives a manually-entered signal (depressing the button) to indicate still image recording, and logic and control unit 32 also encompasses the claimed "still-image-recording control circuit". During a still image mode, a still image

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stored in frame store 29 from converter 27 is selected for encoding. *Id.* at column 4: lines 41–46. Then, frame store 29 is the claimed "still-image-data memory unit". Input selector 28 determines, in response to a signal from logic and control circuit 32, whether to input data directly from converter 27 in case of a motion image mode or frame store 29 in case of a still image mode (column 4: lines 43–50), and so is the claimed "circuit having a switch". Encoder 30, which may encode a still image as a series of zero-motion-vector B frames or an enhanced P frame followed by a series of B frames, and encoding the first frame at the conclusion of recording the still image as the next I frame (column 9: line 22–column 10: line 41), is the claimed "encoding unit" that performs the claimed encoding method. Since the encoder is explicitly shown as an MPEG encoder, it is considered to include a "motion compensation prediction unit" inherently. *Riek* describes a "motion estimation process" in the MPEG encoder that is disabled when producing still enhancement pictures. *Id.* at column 6: lines 7–16. This process of disabling motion estimation is the claimed process of refraining from performing motion compensation during the pre-determined time when still images are being recorded.

Riek differs from the present invention in that in *Riek* rate control to prevent buffer overflow is performed by re-encoding macroblocks, whereas in the present invention, rate control to prevent a code from going over a threshold value is performed by reducing a resolution of image data.

Acampora teaches an image communication system comprising a transmitter and receiver. Figure 6 illustrates a simplified block diagram and figure 7 illustrates a fuller block diagram of the system. Regarding claim 1, in *Acampora*, control 210

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monitors the fill rate of buffer 28. *Acampora*, column 12: lines 53–66. When the buffer becomes too full, a decimating mode is started. *Id.* In the decimating mode, control 210 instructs, via conductor or bus 212, decimator 614 to reduce picture resolution. *Id.* at column 12: lines 3–18. The decimator may reduce the resolution of the image in various ratios, such as 4:3 or 2:1 as required. *Id.* at column 11: lines 45–46, 61–66. Then, control 210 is the claimed rate control circuit, the instruction on conductor 21w is the claimed feedback signal, and decimator 614 is the claimed resolution converting circuit.

Riek discloses the claimed invention except for the claimed resolution reduction. *Acampora* teaches that it was known to reduce picture resolution as required to prevent buffer overflow. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the present invention to modify the system of *Riek* to incorporate the decimator of *Acampora*, since *Acampora* states in column 5: line 31–column 6: line 28 that such a modification would stabilize output data rate and prevent output buffer overflow.

Regarding Claim 7, in *Riek*, as mentioned above with respect to claim 1, during a still picture mode, motion estimation is disabled. *Riek* at column 6: lines 7–16. When this occurs, the enhancement pictures are given zero motion vectors. *Id.* Then, the *Riek* encoder will "suppress or prohibit the occurrence of motion vectors" as claimed, all other limitations of claim 7 now in claim 1.

Regarding Claim 26, in *Riek*, storage device 26 that stores compressed motion images and still images on a medium such as a tape or disk (column 4: lines 28–34) is the claimed "recording unit" that records encoded images on a recording medium.

Regarding Claim 31, in *Acampora*, the decimators that reduce image resolution are described as acting as spatial filters that reduce high-frequency data. *Acampora* at column 6: lines 12–15.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David N. Werner whose telephone number is (571)272-9662. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. N. W./

Examiner, Art Unit 2621

/Dave Czekaj/

Primary Examiner, Art Unit 2621